

Application No. 10/775,077

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MAR 12 2007

Amendments to the CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A hemostatic tissue clamp for clamping a target tissue site, said tissue clamp comprising:
 - a first jaw member and a second jaw member, said first and second jaw members being movable between an open configuration and a clamping configuration, wherein when said first and second jaw members are in said open configuration said first and second jaw members are in a substantially spaced relationship relative to each other for allowing insertion of at least a portion of said target tissue site therebetween, and wherein when said jaw members are in said clamping configuration said first and second jaw are in a substantially proximal relationship relative to each other for exerting a hemostatic pressure on said portion of said target tissue site;
 - said first and second jaw members together defining a substantially endless uninterrupted tissue contacting surface when said jaw members are in said open configuration, said tissue contacting surface configured and sized for exerting a hemostatic pressure and for substantially encompassing said inserted portion of said target tissue site when said jaw members are in said clamping configuration;

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- a jaw actuating ~~means~~ member mechanically coupled to said first and second jaw members for actuating said first and second jaw members between said open and clamping configurations.
- 2. (New) The hemostatic tissue clamp of claim 1, wherein each of said first and second jaw members is configured with a substantially arcuate profile, said jaw members being sized to encompass said inserted portion of target tissue site within said arcuate profile when said jaw members are in said closed configuration, said jaw members being pivotally moveable between said open and closed configurations about a pivotal axis, each of said first and second jaw members terminating at a pair of jaw ends being spaced apart along said pivotal axis and generally aligned thereto.
- 3. (New) The hemostatic tissue clamp of claim 2, wherein said jaw actuating member includes two pairs of jaw actuating arms, each of said first and second jaw members being connected to both said pairs of jaw actuating arms, said first and second jaw members being actuated between said open and clamping configurations by the simultaneous application of a scissor-type movement to each of said pairs of jaw actuating arms.
- 4. (New) An tissue clamp for clamping a body tissue, said body tissue including a target tissue and a non-target tissue, said target tissue being separated from said non-target tissue by a peripheral border, said tissue clamp comprising:

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- a first jaw member and a second jaw member, said first and second jaw members each having first and second jaw ends, said first and second jaw members being coupled to each other at a first coupling member at respective said first jaw ends and simultaneously coupled to each other at a second coupling member at respective said second jaw ends, said second coupling member being spaced apart from said first coupling member;
- said first and second jaw members being movable between an open configuration and a clamping configuration, wherein when said jaw members are in said open configuration said jaw members are in a substantially spaced relationship relative to each other for allowing insertion of said target tissue therebetween, and wherein when said jaw members are in said clamping configuration said first and second jaw are in a substantially proximal relationship relative to each other for exerting a tissue clamping pressure substantially adjacent to said target tissue;
- said first and second jaw members together defining a substantially continuous jaw perimeter when said jaw members are in said open configuration, said jaw perimeter being configured and sized with a tissue contacting surface for exerting said tissue clamping pressure generally along said peripheral border so as to substantially encompass said target tissue from said non-target tissue when said jaw members are in said clamping configuration;

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- a jaw actuating member mechanically coupled to said first and second jaw members for actuating said first and second jaw members between said open and clamping configurations.
5. (New) The tissue clamp of claim 4, wherein said first and second coupling members are configured to allow relative pivotal movement between said first and second jaw members when said jaw members are actuated between said closed and open configurations, said pivotal movement occurring about a pivotal axis generally aligned through said first and second coupling members.
6. (New) The tissue clamp of claim 5, wherein said first coupling member includes a first hinge member and said second coupling member includes a second hinge member, said pivotal axis extending through said first and second hinge members, and wherein each of said first and second jaw members is configured with a substantially arcuate jaw profile, said jaw members being sized to encompass said target tissue within said arcuate jaw profile when said jaw members are in said closed configuration, each of said arcuate jaw profiles extending between a first and a second arc end, said first and second arc ends of each of said arcuate jaw profiles being located generally adjacent to said first and second hinge members, respectively.

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7. (New) The tissue clamp of claim 5, wherein said tissue clamp further comprises a clamp locking member for releasably locking said first and second jaw members in a predetermined spatial relationship relative to each other.
8. (New) The tissue clamp of claim 4, wherein said jaw actuating member is displaceable in a direction extending laterally away from said target tissue so as to reduce obstruction to said target tissue when said jaw members are in said clamping configuration.
9. (New) The tissue clamp of claim 5, wherein said jaw actuating member includes an actuating cable mechanically coupled to at least one of said first and second jaw members at a first cable end and mechanically coupled to a hand-cable interface at a second cable end, whereby when said hand-cable interface is manually actuated said actuating cable mechanically transmits said manual actuation to produce a corresponding said pivotal movement between said first and second jaw members.
10. (New) The tissue clamp of claim 4, wherein said tissue clamp further includes a shielding member attachable to at least one of said first and second jaw members, said shielding member being configured and sized to extend outwardly away from said continuous jaw perimeter so as to create a

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membranous barrier substantially shielding said non-target tissue from said target tissue.

11. (New) The tissue clamp of claim 4, wherein said tissue contacting surface of said jaw perimeter includes a friction-enhancing texture so as to improve adherence of said first and second jaw members to said body tissue being clamped during actuation of said first and second jaw members between said open and clamping configurations.
12. (New) The tissue clamp of claim 4, wherein at least one of said first or second jaw members includes a clamping insert for exerting said tissue clamping pressure, said clamping insert being releasably attached to said at least one of said first or second jaw members and covering at least a portion thereof.
13. (New) The tissue clamp of claim 12, wherein said clamping insert is configured with a friction-enhancing texture so as to improve adherence of said at least one of said jaw members to said body tissue being clamped during actuation of said jaw members between said open and clamping configurations.
14. (New) The tissue clamp of claim 12, wherein said clamping insert is configured with a tissue suctioning aperture allowing a suctioning force to

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be transmitted to said body tissue being clamped when said suctioning aperture is in proximity thereto.

15. (New) The tissue clamp of claim 4, wherein said tissue clamp further comprises a clamp attachment member for attaching said tissue clamp to a surgical platform so as to allow setting of said first and second jaw members in a desired spatial relationship relative to said surgical platform.
16. (New) The tissue clamp of claim 4, wherein said tissue clamp is provided with a cooling means for cooling at least a portion of said target tissue, said cooling means includes a cooling fluid channel extending at least partially adjacent at least one of said first and second jaw members.
17. (New) The tissue clamp of claim 16, wherein said cooling means further comprises a cooling skirt, said cooling skirt extending in a direction away from said jaw members and generally above said non-target tissue, said cooling skirt being configured to cool said non-target tissue.
18. (New) The tissue clamp of claim 4, wherein said tissue clamp is provided with an energy transmission member connected to at least one of said first and second jaw members so as to be in an operational distance away from said target tissue when said energy transmission member is deployed in order to effectuate an energy transfer therebetween.

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19. (New) The tissue clamp of claim 18, wherein said energy transfer results in a radiofrequency ablation of said target tissue.
20. (New) The tissue clamp of claim 18, wherein when said energy transmission member is deployed said energy transfer involves a microwave energy.
21. (New) The tissue clamp of claim 18, wherein when said energy transmission member is deployed said energy transfer involves an ultrasonic energy.
22. (New) The tissue clamp of claim 4, wherein said first and second jaw members are configurable to vary the shape and size of said continuous jaw perimeter so as to allow improved conformance of said tissue contacting surface to said peripheral boundary and so as to encompass various shapes or sizes of said target tissue.
23. (New) The tissue clamp of claim 5, wherein said tissue clamp is configured and sized for use in a nephron-sparing surgery, said body tissue being a kidney, said target tissue including a tumourous mass on said kidney, said first and second jaw members providing hemostatic clamping of said target

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tissue so as to allow surgical treatment of said tumourous mass without exposing said non-target tissue of said kidney to hemostasis.

24. (New) The tissue clamp of claim 4, wherein said first and second jaw members are collapsible into a collapsed configuration, said collapsed configuration allowing an intra-corporeal insertion of said jaw members through a body opening allowing access to said target tissue, whereby said collapsed configuration allows said body opening to be of a reduced size relative to the size otherwise required to allow insertion of said jaws members when said jaw members are in said clamping configuration.
25. (New) The tissue clamp of claim 5, wherein said first and second jaw members are collapsible into a collapsed configuration, wherein when said jaw members are in said collapsed configuration said jaw members are in closer proximity to said pivotal axis than when said jaw members are in said open configuration, said collapsed configuration allowing an insertion of said jaw members through an endoscopic access port allowing access to said target tissue, said insertion of said jaw members occurring generally along a direction parallel to said pivotal axis, whereby said collapsed configuration allows said endoscopic access port to be of a reduced size relative to the size otherwise required to allow insertion of said jaws members when said jaw members are in said clamping configuration.

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26. (New) The tissue clamp of claim 25, wherein each of said first and second jaw members includes a plurality of substantially linear jaw links pivotally attached together adjacent longitudinal ends thereof by a suitable coupling member, in said collapsed configuration said plurality of jaw links assuming a generally linear arrangement substantially aligned with said pivotal axis so as to facilitate said insertion of said jaw members through said endoscopic access port, in said open configuration said plurality of jaw links assuming a generally rectilinear arrangement having at least a number of said jaw links spaced further away from said pivotal axis relative to their corresponding spacing when said jaw links are in said collapsed configuration.